



C&I

We move you.  
With strength and  
efficiency.



*Power. Passion. Partnership.*





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#### 1 Technological leader

As a supplier of high-quality, performance drive solutions, MTU stands for the highest level of technological expertise.

#### 2 Passion

MTU is passionate about fulfilling the needs of its customers with the utmost professionalism and precision.

#### 3 Partnership

MTU is a reliable and trend-setting partner which acts with foresight in a results-oriented manner.

## A customer-oriented technological leader.

MTU supplies its customers with technologically-advanced products that are proven in the field. MTU's range of products and services for off-highway applications is extensive and includes both standard and customized solutions.

MTU is the core brand of Rolls-Royce Power Systems AG, which is a world-leading provider of high- and medium-speed diesel and gas engines, complete drive systems, distributed energy systems and fuel injection systems for the most demanding requirements.

The product range of MTU is one of the widest and most modern in the sector. We offer comprehensive, powerful and reliable engine solutions for yachts, commercial ships and naval vessels, construction and industrial vehicles, agricultural machinery, mining, rail and military vehicles as well as for the oil and gas industry. We also provide a full line of service products to help you maximize uptime and performance.

For over 100 years, MTU has been known for cutting-edge innovation and technological leadership. That same spirit of innovation inspires our sustainability efforts. Today and in the future, our focus is on developing and implementing system solutions to maximize efficiency and meet emissions standards.

#### An expert technological leader

MTU has always set standards in technological expertise for customized product and system solutions. To deliver you maximum power density, we concentrate our innovation on the continuous advancement of our core competencies: fuel injection, turbo charging, exhaust aftertreatment and electronics.

#### A passionate engine specialist

We spend every day working together with you, our customers, to deliver engines and systems that best fit your needs. Whether a standard system or a customized solution – we are passionate about the art of engine creation.

#### A reliable partner

We understand the specific demands for diverse applications. In collaboration with you, we look for the solutions which are best suited to your individual requirements. Every step of the way – from the start of project planning, during the design of your integrated system solution, at the point of delivery and commissioning and continuing through the care of your product – we are there with you for the entire lifecycle.





## We carve the path to success. For you. With you.

It is easy to progress on paved streets and paths or in open terrain. Success is more difficult to achieve in areas with harsh conditions, but it is possible. To do this you need dependable products and partners – with clear objectives, and with strength and efficiency.



### Maximum power – everyday

Engines are put to the test in construction and industrial applications. Whether power, efficiency, or service life – top performance is constantly called for. But the higher the demand, the more convincing are the arguments for our engines. Designed for the highest level of performance, they prove themselves everywhere at any time: at extreme heights and low temperatures, in all climates, on every street, on every terrain.

Our engines represent maximum availability and reliability, low life cycle costs and maximum economy for thousandfold proven durability and an excellent power-to-weight ratio.

With our integration know-how and numerous years of experience we ensure that our extensive product range can consistently provide the right drive solution.

### Keep going

Our commitment to construction and industrial customers extends beyond the sale of our engines and systems. Through MTU **ValueCare** we offer a full line of products and services designed to ensure maximum performance, uptime and value. And our global service network is available to provide expert support wherever you are.





Engines for Mobile Cranes

# Performing at the highest level.



## Engines that raise the standard

Construction work must be carried out quickly and in a profitable manner. Safety, mobility, and precision play an essential role here – and above all they are ensured with reliable engines.

Our engines take on three tasks in mobile cranes. First of all they make it possible to move quickly and reliably on even streets. Despite their size, the high torque ensures even at the lowest engine speeds that they arrive at the site quickly and that they can safely handle ascents. Secondly our engines ensure that the heavyweights maintain high mobility and maneuverability even on difficult terrain. And since the availability of the entire crane vehicle depends on the reliability of the engines, our drives are also a decisive economic factor.

Highest reliability, maximum efficiency and top performance – qualities with which our engines bring you to the top.

## Dependable support

High availability and reliability are essential for successful operations. We are committed to your support. Through our convenient global service network, MTU specialists are ready to provide expert assistance for maximum performance.



# Tough ones in continuous use.

**Powerful. Economical. Indispensable.**

Regged terrain, hard ground, constantly swirling dust, or pervasive dampness: this is the environment in which dump trucks work every day. Above all, all-terrain transport vehicles demand a great deal from their engines.

Our tried and tested drives feature the most important characteristic for proving themselves in these conditions: low engine speeds and high torque provide for extremely high engine power. Furthermore the low fuel consumption rates keep the cost per ton of material moved low.

Our large diesels are above all known for their exemplary reliability and highest availability. In this way we help you with the smooth flow of the “convey – transport – process” system that makes economic success possible. Long service intervals and low fuel consumption help to minimize operating costs – and improve efficiency.

**Powerful service**

With MTU as your partner you can operate with confidence. Through our extensive global service and network, MTU specialists are readily available to provide expert support at your site.







Engines for Loaders, Dozers and Excavators

# Moving mountains for you.

## Designed for extreme conditions

To move massive amounts of material or to run full speed at full load: the job profiles for excavators, wheel loaders and bulldozers may sound simple, but mastering it is difficult for conventional engines. Operating under extreme loads shows what an engine really is made of.

With their robustness and excellent load-uptake capacity, our diesel engines enable the maximum performance of vehicles combined with: reduced load cycles, quicker acceleration, faster speeds – even at maximum load and on inclines.

And in the long run, you can count on our engines. Low fuel and oil consumption levels, long service intervals and simplified maintenance ensure that operating costs remain low – an important plus for your profitability.

Constantly available, stable, durable and efficient: Our engines are available for continuous operation and lay solid foundations in the competitive environment.

## We're with you all the way

The reliability and performance of your engines and systems are crucial for your success and competitiveness. No matter where you operate, MTU specialists are available through our global service network to provide expert support.





Engines for Road Building Equipment

# Ground-breaking performance.

## Rugged technology

Dust, mud, moisture, heat, multi-shift operation: engines in road construction machines must work under the most severe conditions. Our engines are built for that.

Totally reliable and extremely robust, with high power density and low fuel consumption, our engines make sure that your vehicles and equipment can work continuously. A variety of accessories for many different cases of operation make it possible to optimally adapt the engines for extraordinary conditions such as operating frequently at full-load or in high ambient temperatures.

## Support to keep you going

To help ensure maximum uptime and performance, MTU specialists are ready to provide expert support wherever and whenever you need it.



Engines for Harbour Equipment

# A strong link in supply chain logistics – worldwide.

## **Fast. Reliable. Efficient.**

Loading and unloading times in ports are expensive. With the objective of fast, efficient movement of goods in perfect cooperation with electronic machine control in continuous operation, our diesel engines show what they can do here, too.

They provide the power for traction motors, winches, rotating and luffing mechanisms in dockside cranes, gantry cranes, container carrier trucks, container handlers, and AGVs, making optimal use of their capabilities. Whether numerous containers need to be moved as quickly as possible, versatility is called for or strict economic criteria must be adhered to, our engines take care of the job. Every day they work reliably in ports around the world and significantly contribute to completing major logistics supply chains.

As a professional service partner, we ensure the long-term, fast, expert support in all matters. Maintenance-friendly engine designs simplify maintenance and reduce downtime.







Engines for Airport Ground Support Equipment

Performance,  
economy, reliability:  
all First Class.

#### Special engines for special requirements

For vehicles and equipment that provide support at airports, very specific demands are placed on their engines. Whether they are for ground power units, baggage loaders, runway sweepers, towing tractors or fire fighting equipment: In order to ensure smooth operation at the airport, uncompromising reliability is the first priority.

Our engines are designed precisely for this. They meet the high standards of availability and are convincing in continuous operation – even under extreme weather and temperature conditions.

#### Trust and Security

With MTU you receive not only an engine, but also a perfectly matched package every time. We know that each airport ground support and fire fighting equipment contributes decisively to ensure the safety of the airport and to meet flight schedules. Our service is also focused on meeting these goals. With our extensive service network we offer you professional support for all matters – around the globe, around the clock.



# Versatile solutions for specific tasks.

**In use on roads and slopes**

All of our customers are successful manufacturers of high-grade vehicles and systems. Together with us you ensure that both engine and machine, application and drive, investment and earnings are perfectly tuned to one another – whether preparing ski slopes, clearing snow from the roads or cleaning streets. Whoever equips their vehicles, machines, and devices with MTU diesel engines can be assured of superior development in performance, exemplary economical efficiency, and a maximum investment security.

Our drives can be optimally customized to the extraordinary demands of special vehicles. For example the electronic engine management allows application-specific parameterization – i.e. neutral gear and diverse engine speeds can be programmed directly.

Numerous possibilities for power take-offs make it easier to connect additional power trains and shaft drives for e.g. hydraulic pumps, air compressors, or other auxiliary devices.

Furthermore, arguments such as the maintenance-friendly engine design, low consumption values of fuel and supplies, and last but not least, the compliance with pollutants standards, convince both investors and users around the globe.

Central parts depots ensure the reliable supply of spare parts as you need them – everywhere and at any time.





Engines for Pumps, Compressors and other C & I Applications

# Ready for every challenge.



## The challenges are as diverse as we are

Tell us your requirements, and with you we will plan customized solutions for a variety of special applications:

- Pumps and compressors
- Shredders
- Screeners and crushers
- Trenchers, augers and more

With the acknowledged high reliability, our engines certainly provide for smooth operations. Long maintenance intervals and low specific fuel consumption keep the life cycle costs low and increase efficiency.

## Optimal workflow

Whether shredders or screeners, whether trenchers, augers or scrapers – all are important in their areas of applications and essential equipment that is integral to the success of the work. That is why it is even more important that these machines not only deliver continuous operation but also high throughput and continuous availability to the user.

MTU engines above all guarantee that in addition to these requirements optimal strength and drive is necessary in order to achieve the best possible outcome depending on the application.

## Versatile performance

Pumps and compressors are indispensable machinery on construction sites. In such mobile or stationary devices, our engines reliably produce compressed air for demolition hammers, drilling and spraying equipment, for example. They also certainly provide constant availability, which is needed to work profitably. With high power density, compact dimensions and complete full load capacity, our engines fulfill important requirements for this demanding application. Another big plus of our engines is their flexibility: The ability to use a variety of different power take-offs makes them ideal for highly specialized applications. Their low fuel consumption helps to further improve the efficiency.

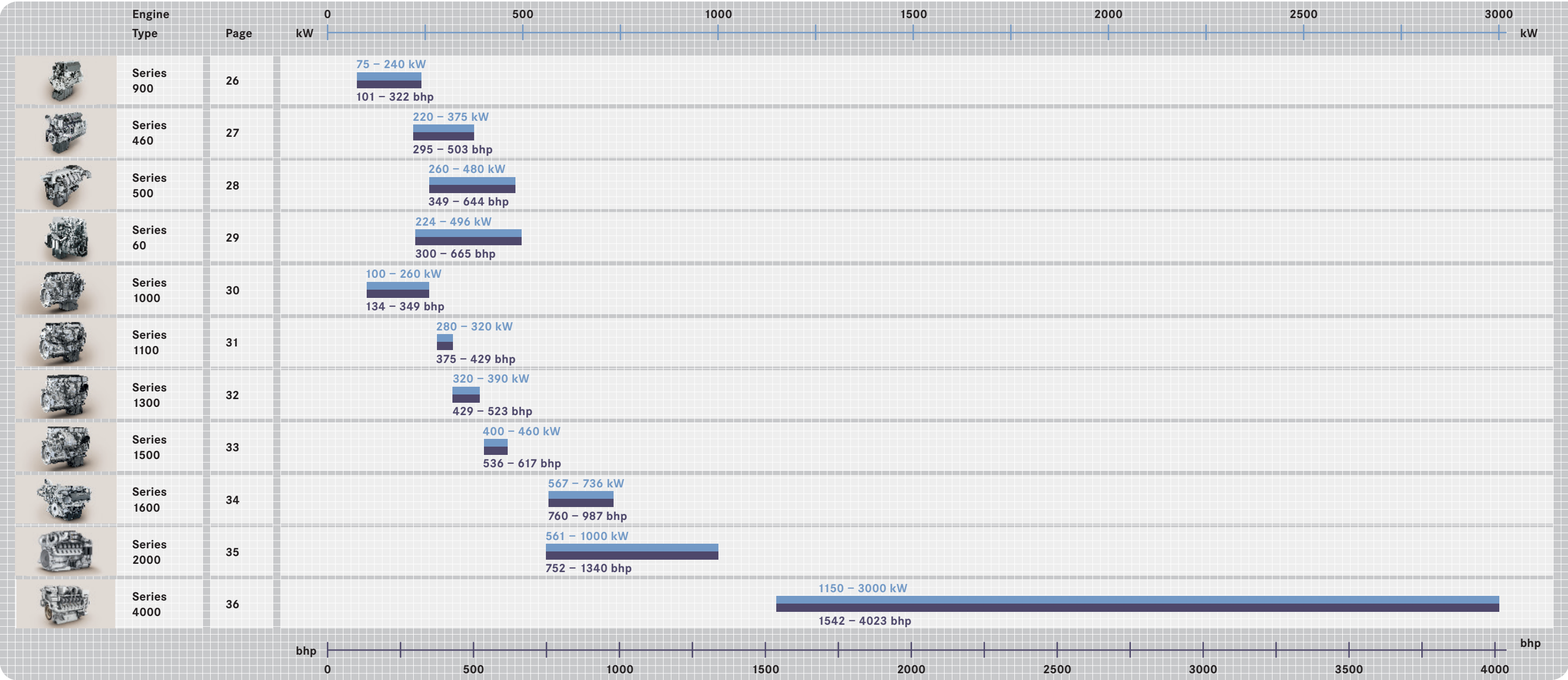
## Rely on us

Security is everything in the construction business. So we are there when you need us – around the globe – wherever you are. As your partner, we provide comprehensive support – in all respects.

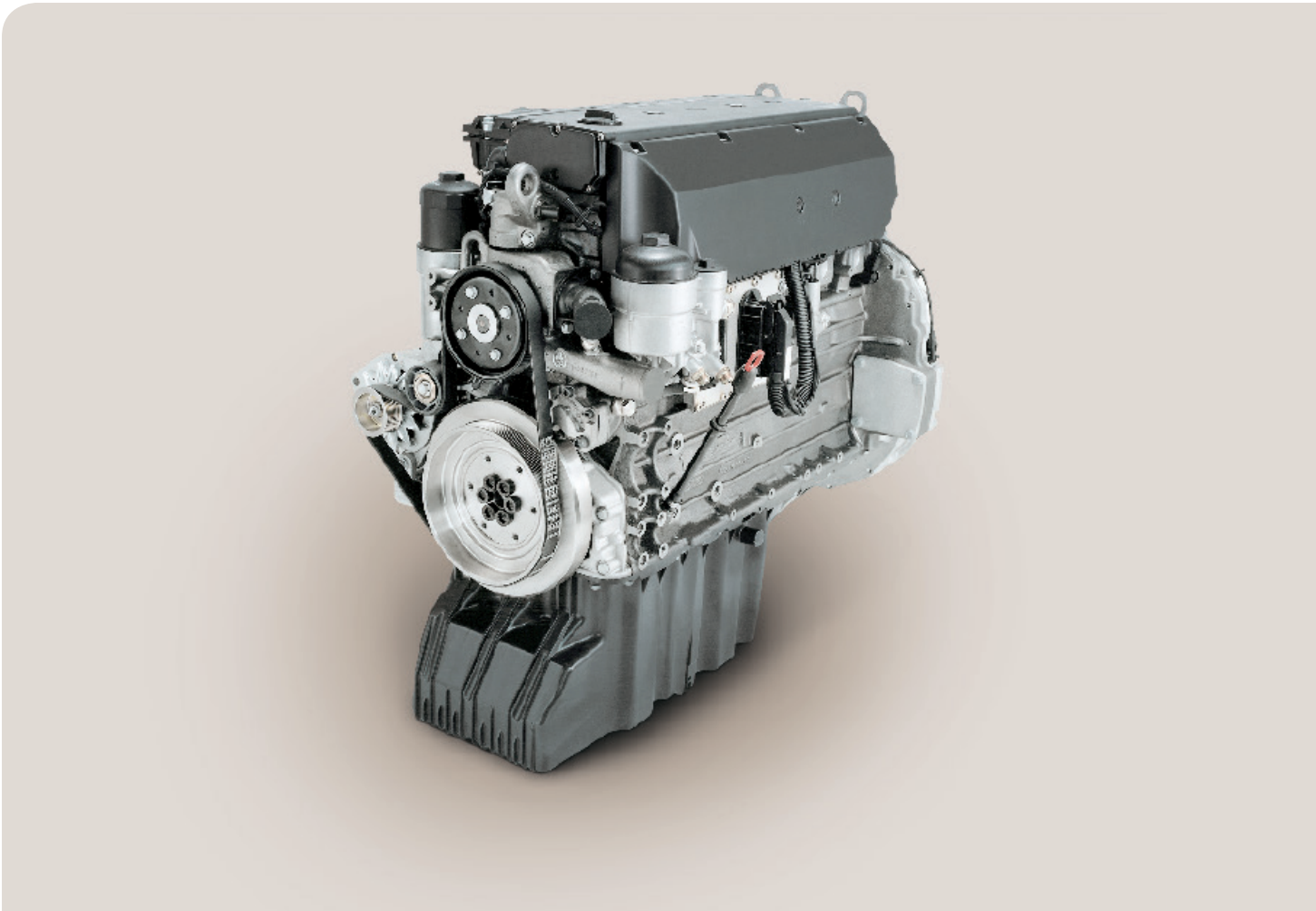


# All engines at a glance

The higher the requirements and the more specific the application, the more the need for an MTU engine. That's because we develop the optimum drive solutions for all individual tasks. The large range of MTU engines contains the right answer for every application – a solution including the highest performance, greatest reliability, safety, environmental friendliness and operating efficiency.







# Series 900

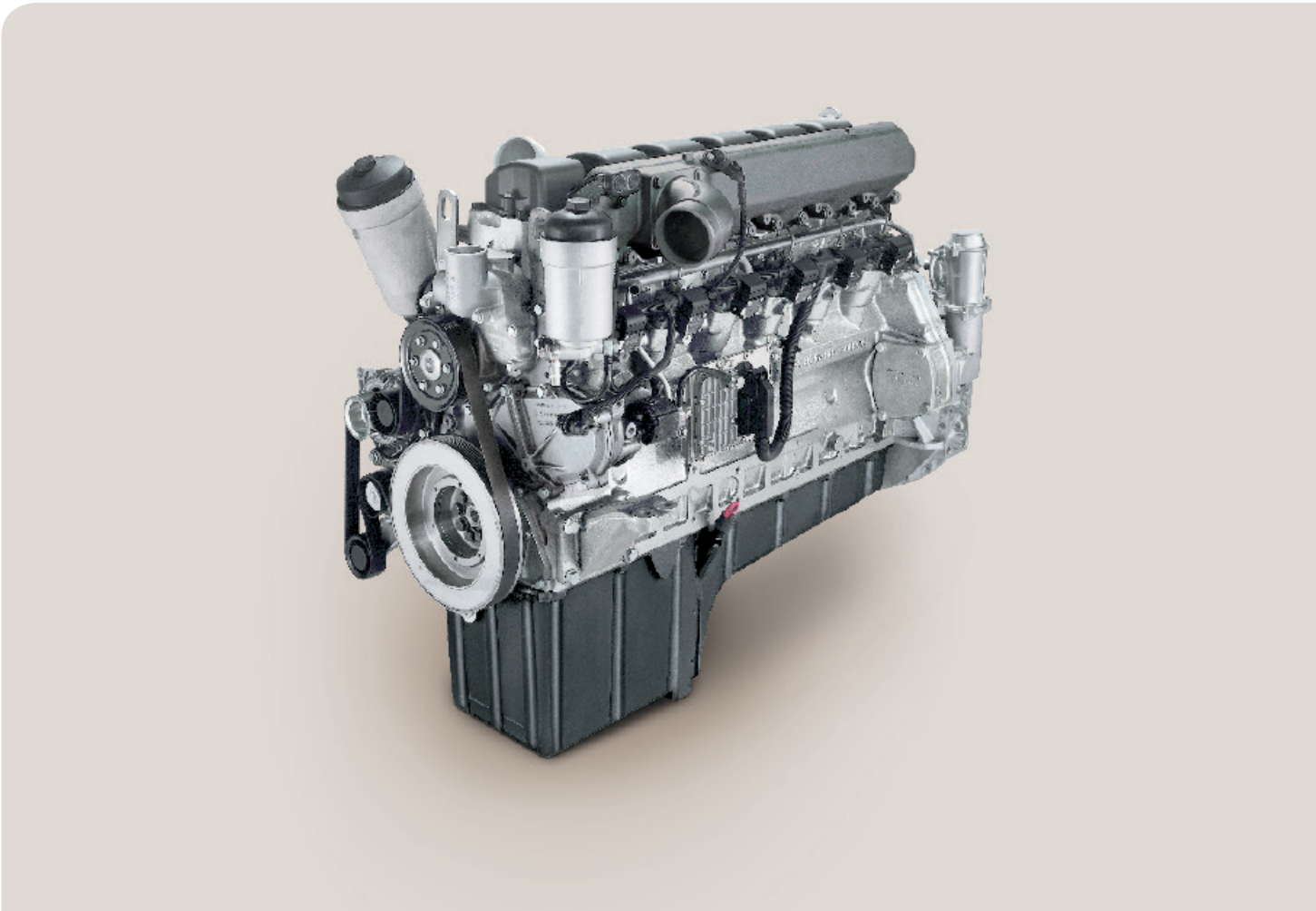
Series		900			
Engine model		904 C01	906 C01	924 C01	926 C01
		4R	6R	4R	6R
Power Output	kW	75 – 129	130 – 205	145	220 – 240
	(bhp)	(101 – 173)	(174 – 275)	(194)	(295 – 322)
Peak Torque	Nm	400 – 675	675 – 1100	750	1200 – 1300
Speed	rpm	2200	2200	2200	2200
Emissions qualification		EU Nonroad St IIIA Comp (97/68/EC), EPA Nonroad T3 Comp (40CFR89), China NRMM Stage III (GB20981-2014) upon request			

Series		900 with SCR technology	
Engine model		924 C02	926 C02
		4R	6R
Power Output	kW	95 – 150	175 – 240
	(bhp)	(127 – 201)	(235 – 322)
Peak Torque	Nm	500 – 800	850 – 1300
Speed	rpm	2200	2200
Emissions qualification		EU Nonroad St IIIB Comp (97/68/EC), EPA Nonroad T4i Comp (40CFR1039)	



Mercedes-Benz

Engineering Excellence



# Series 460

Series		460
Engine model		460 C01
		6R
Power Output	kW	220 – 375
	(bhp)	(295 – 503)
Peak Torque	Nm	1300 – 2200
Speed	rpm	1800
Emissions qualification		EU Nonroad St IIIA Comp (97/68/EC), EPA Nonroad T3 Comp (40CFR89), China NRMM Stage III (GB20981-2014) upon request

Series		460 with SCR technology
Engine model		460 C02
		6R
Power Output	kW	265 – 375
	(bhp)	(355 – 503)
Peak Torque	Nm	1750 – 2200
Speed	rpm	1800
Emissions qualification		EU Nonroad St IIIB Comp (97/68/EC), EPA Nonroad T4i Comp (40CFR1039), China Onroad Stage V (GB17691-2005)



Mercedes-Benz

Engineering Excellence







# Series 500

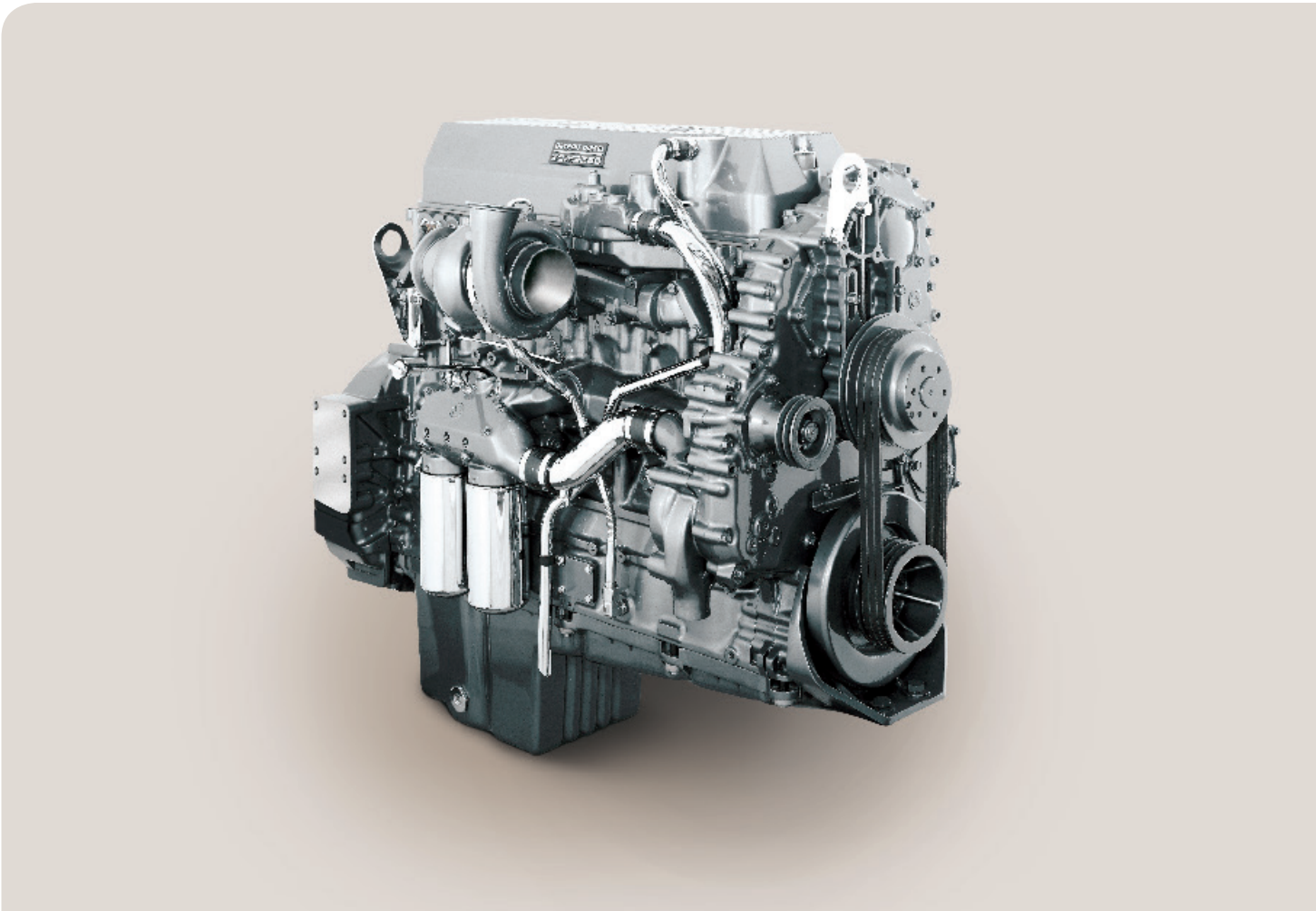
Series		500	
Engine model		501 C01	502 C01
		6V	8V
Power Output	kW	260 – 315	330 – 480
	(bhp)	(349 – 422)	(442 – 644)
Peak Torque	Nm	1730 – 2000	2150 – 2800
Speed	rpm	1800	1800
Emissions qualification		EU Nonroad St IIIA Comp (97/68/EC), EPA Nonroad T3 Comp (40CFR89), China NRMM Stage III (GB20981-2014) upon request	

Series		500 with SCR technology	
Engine model		501 C02	502 C02
		6V	8V
Power Output	kW	265 – 350	375 – 480
	(bhp)	(355 – 469)	(503 – 644)
Peak Torque	Nm	1850 – 2300	2400 – 3000
Speed	rpm	1800	1800
Emissions qualification		EU Nonroad St IIIB Comp (97/68/EC), EPA Nonroad T4i Comp (40CFR1039), China Onroad Stage V (GB17691-2005)	



Mercedes-Benz

Engineering Excellence

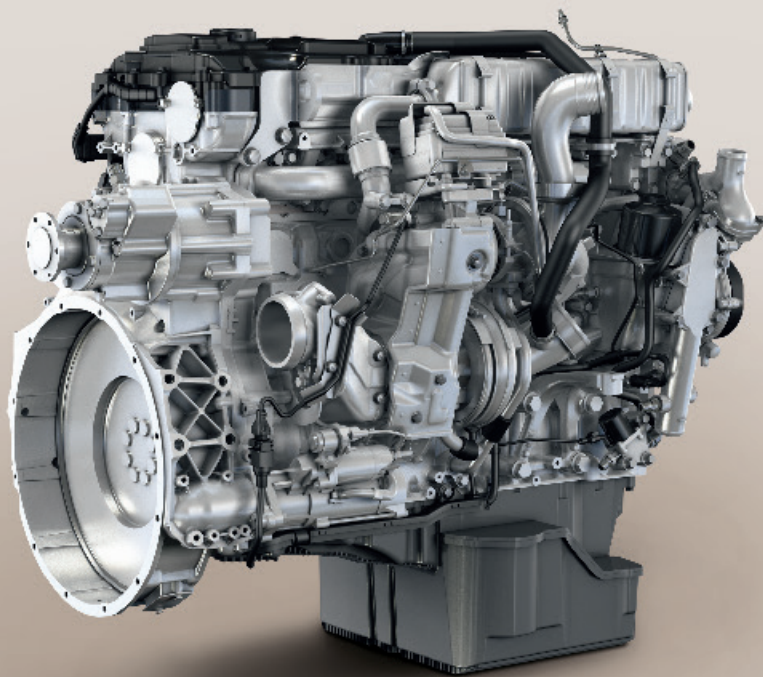


# Series 60

Series		60	
Engine model		12.7 l	14 l
Power output	kW	224 – 373	336 – 496
	(bhp)	(300 – 500)	(450 – 665)
Peak torque	Nm	1424 – 2237	2237 – 2576
Speed	rpm	2100 – 2300	
Emissions certification		EU Nonroad St II Comp (97/68/EC), EPA Nonroad T2 Comp (40CFR89)	

Series		60	
Engine model		14 l	
Power output	kW	242 – 496	
	(bhp)	(325 – 665)	
Peak torque	Nm	1559 – 2576	
Speed	rpm	2000 – 2300	
Emissions certification		EU Nonroad St IIIA Comp (97/68/EC), EPA Nonroad T3 Comp (40CFR89), China NRMM Stage III (GB20981-2014) upon request	

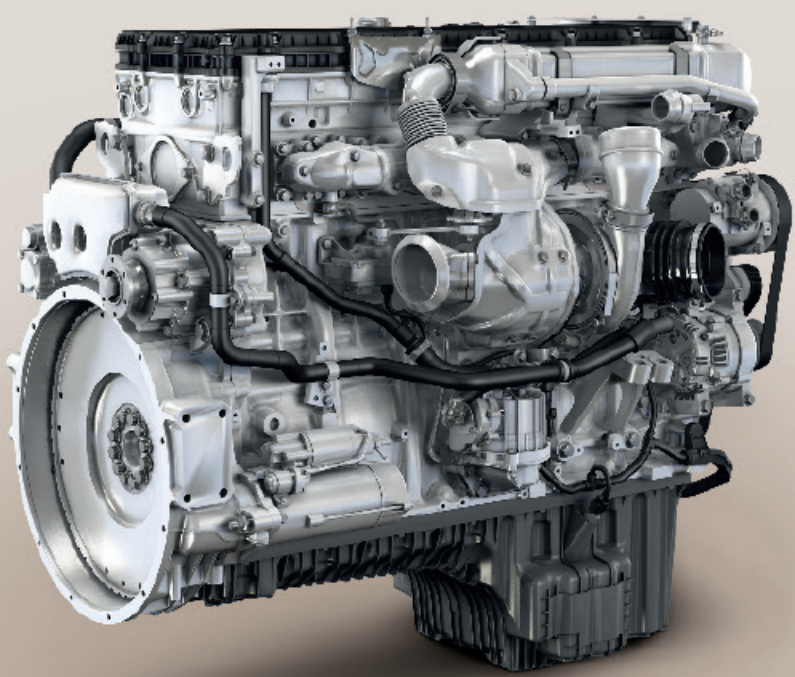




Picture 6R

# Series 1000

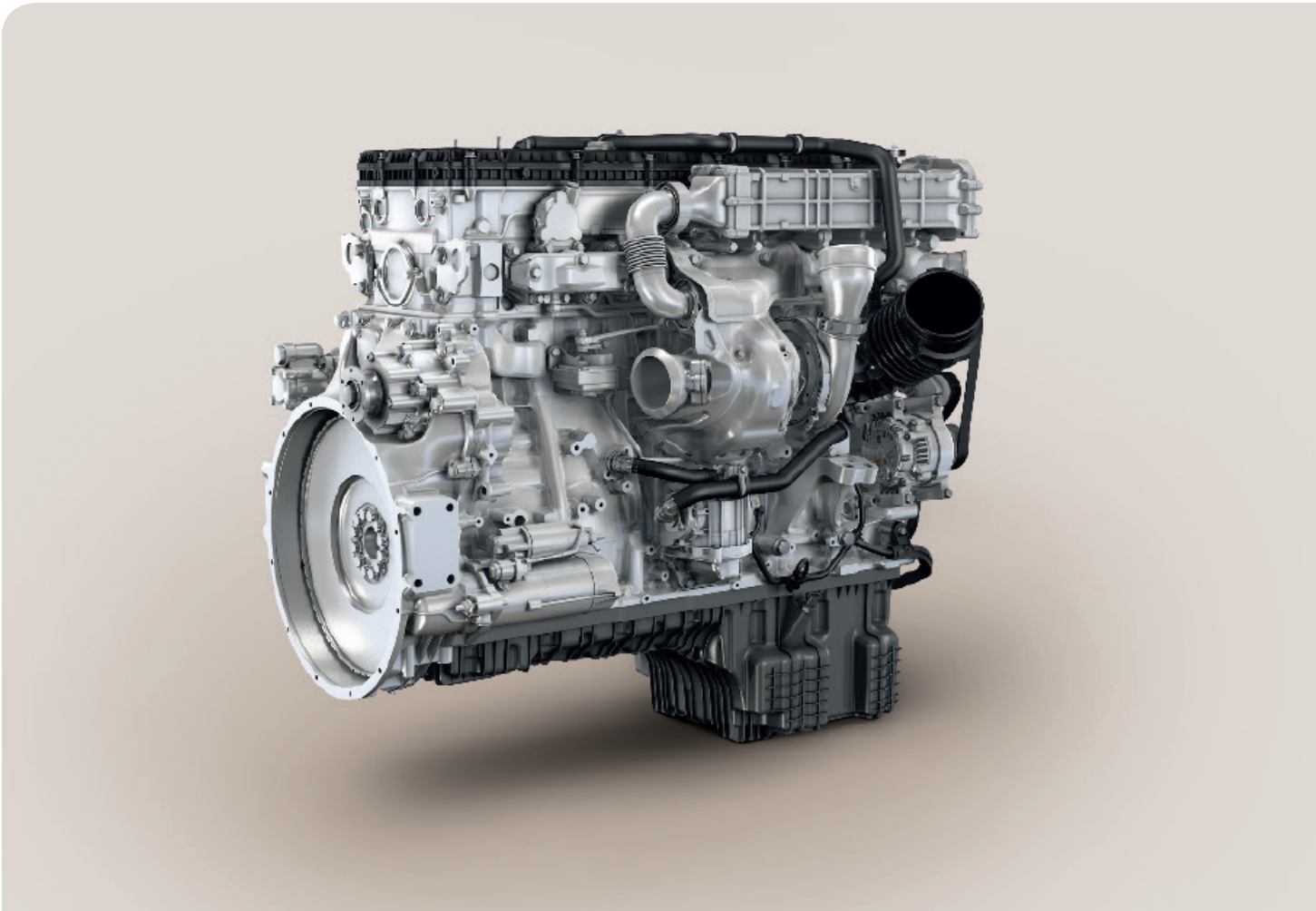
Series		1000 with EGR and SCR technology	
Engine model		1000 C00	
		4R	6R
Power Output	kW	100 – 170	180 – 260
	(bhp)	(134 – 228)	(241 – 349)
Peak Torque	Nm	600 – 900	1000 – 1400
Speed	rpm	2200	2200
Emissions qualification		EU Nonroad St IV (97/68/EC), EPA Nonroad T4 (40CFR1039)	



# Series 1100

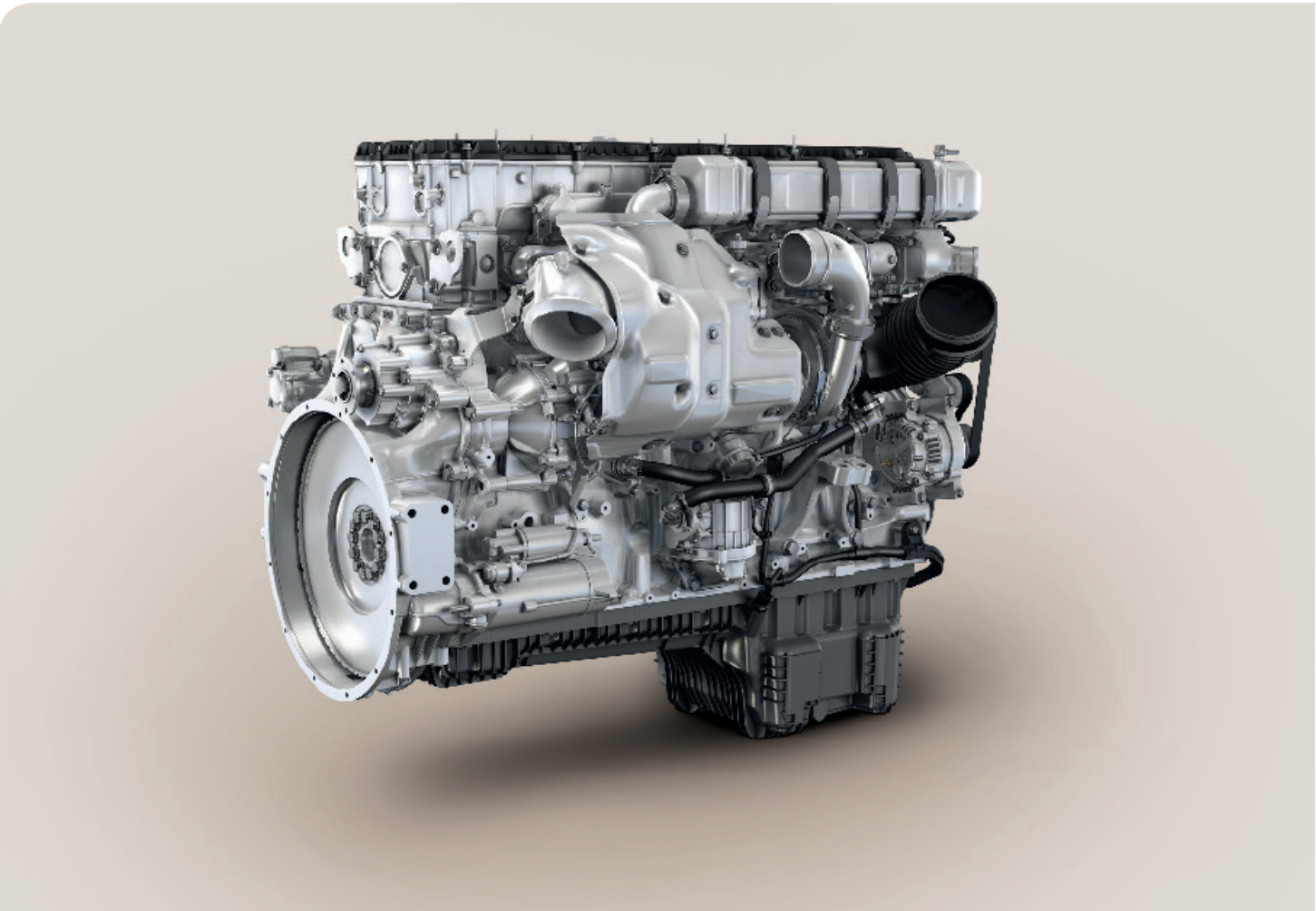
Series		1100 with EGR and SCR technology	
Engine model		1100 C00	
		6R	
Power Output	kW	280 – 320	
	(bhp)	(375 – 429)	
Peak Torque	Nm	1900 – 2100	
Speed	rpm	1700	
Emissions qualification		EU Nonroad St IV (97/68/EC), EPA Nonroad T4 (40CFR1039)	





# Series 1300

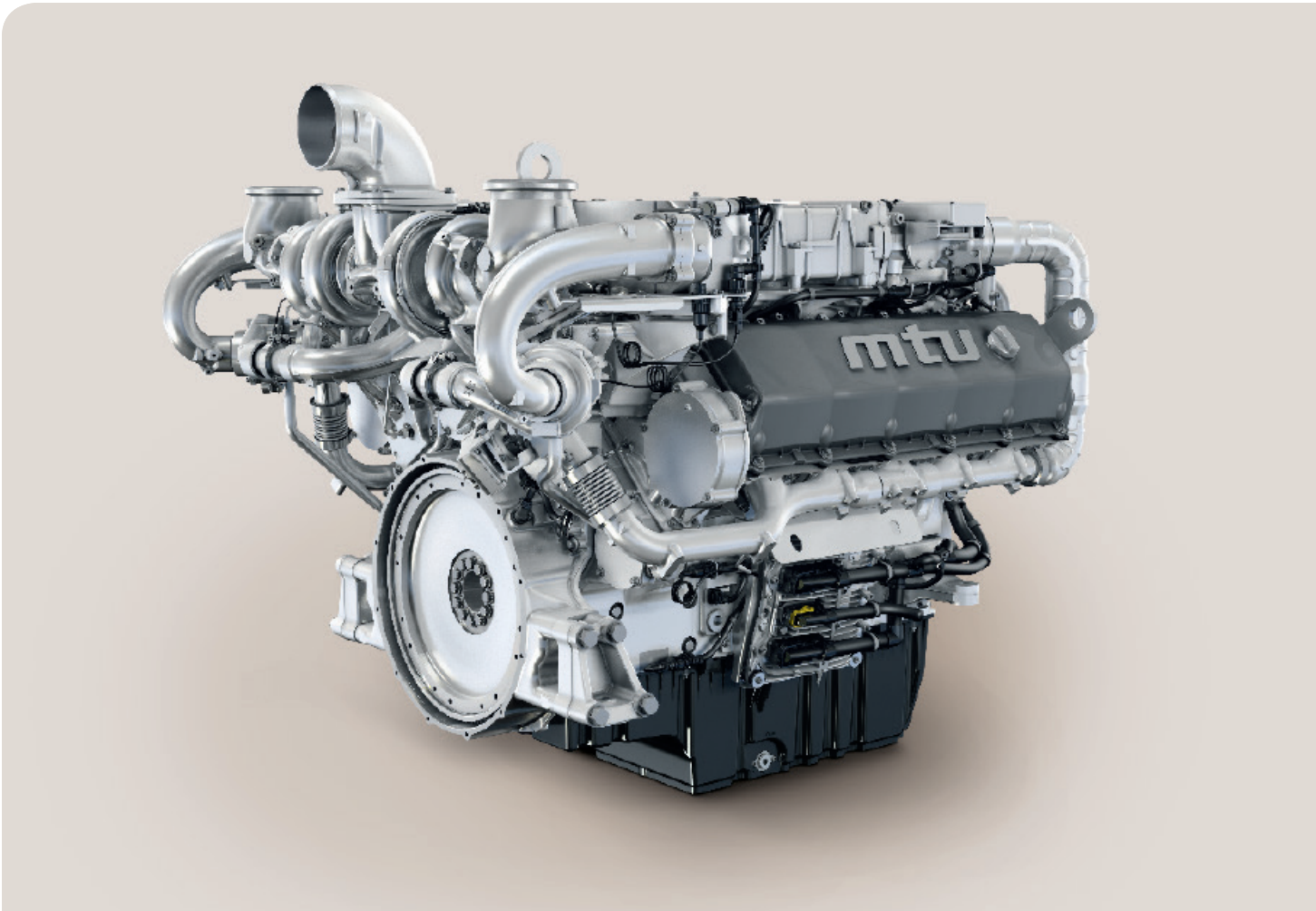
Series		1300 with EGR and SCR technology
Engine model		1300 C00
		6R
Power Output	kW (bhp)	320 – 390 (429 – 523)
Peak Torque	Nm	2100 – 2450
Speed	rpm	1700
Emissions qualification		EU Nonroad St IV (97/68/EC), EPA Nonroad T4 (40CFR1039)



# Series 1500

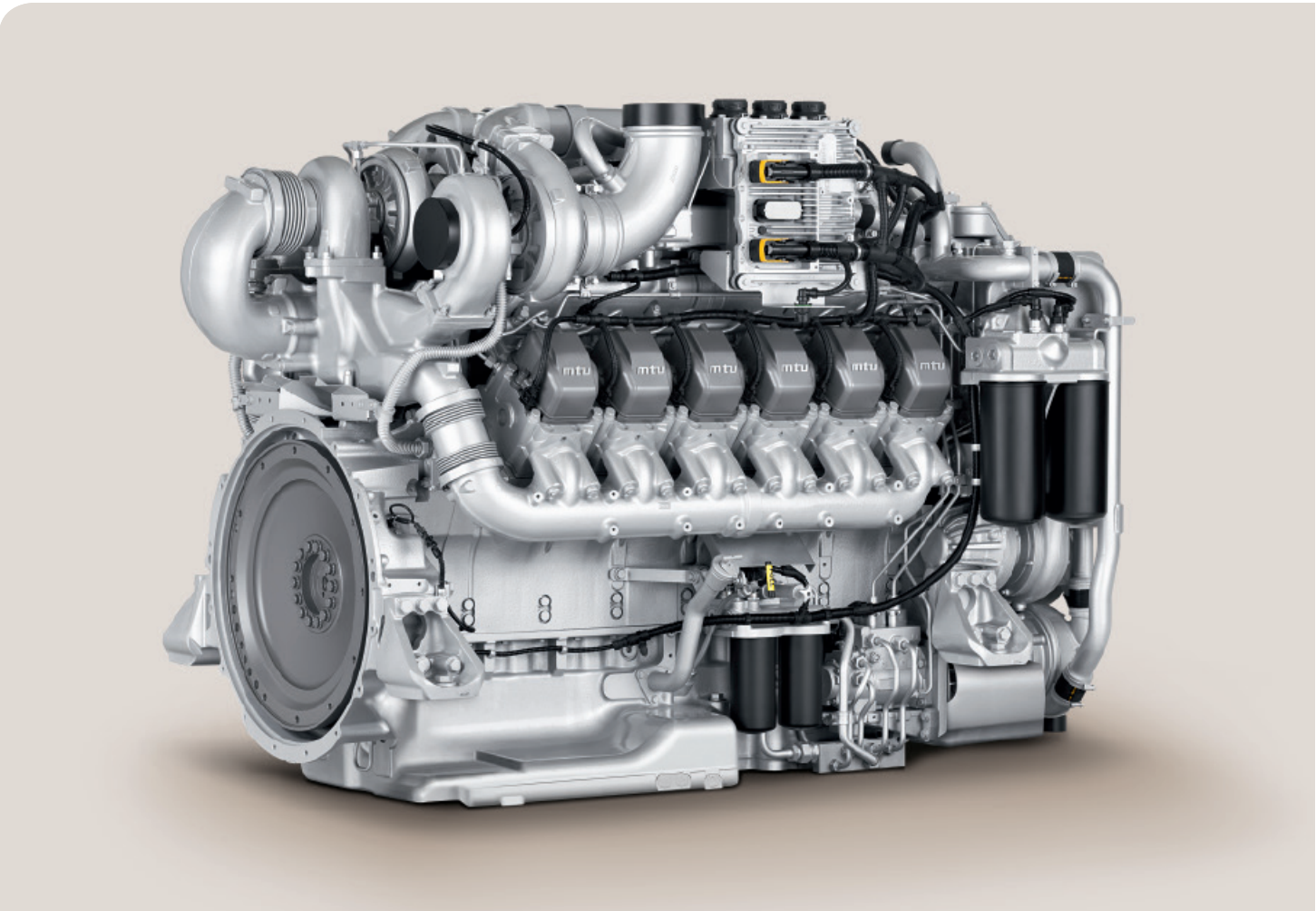
Series		1500 with EGR and SCR technology
Engine model		1500 C00
		6R
Power Output	kW (bhp)	400 – 460 (536 – 617)
Peak Torque	Nm	2600 – 2900
Speed	rpm	1700
Emissions qualification		EU Nonroad St IV (97/68/EC), EPA Nonroad T4 (40CFR1039)





# Series 1600

Series		1600 with EGR technology	
Engine model		1600 C00	
		10V	12V
Power Output	kW	567 – 613	636 – 736
	(bhp)	(760 – 822)	(853 – 987)
Peak Torque	Nm	3385 – 3517	4020 – 4220
Speed	rpm	1900/2100	1900/2100
Emissions qualification		EPA Nonroad T4 (40CFR1039), EPA Nonroad T4 Comp (40CFR1039)	



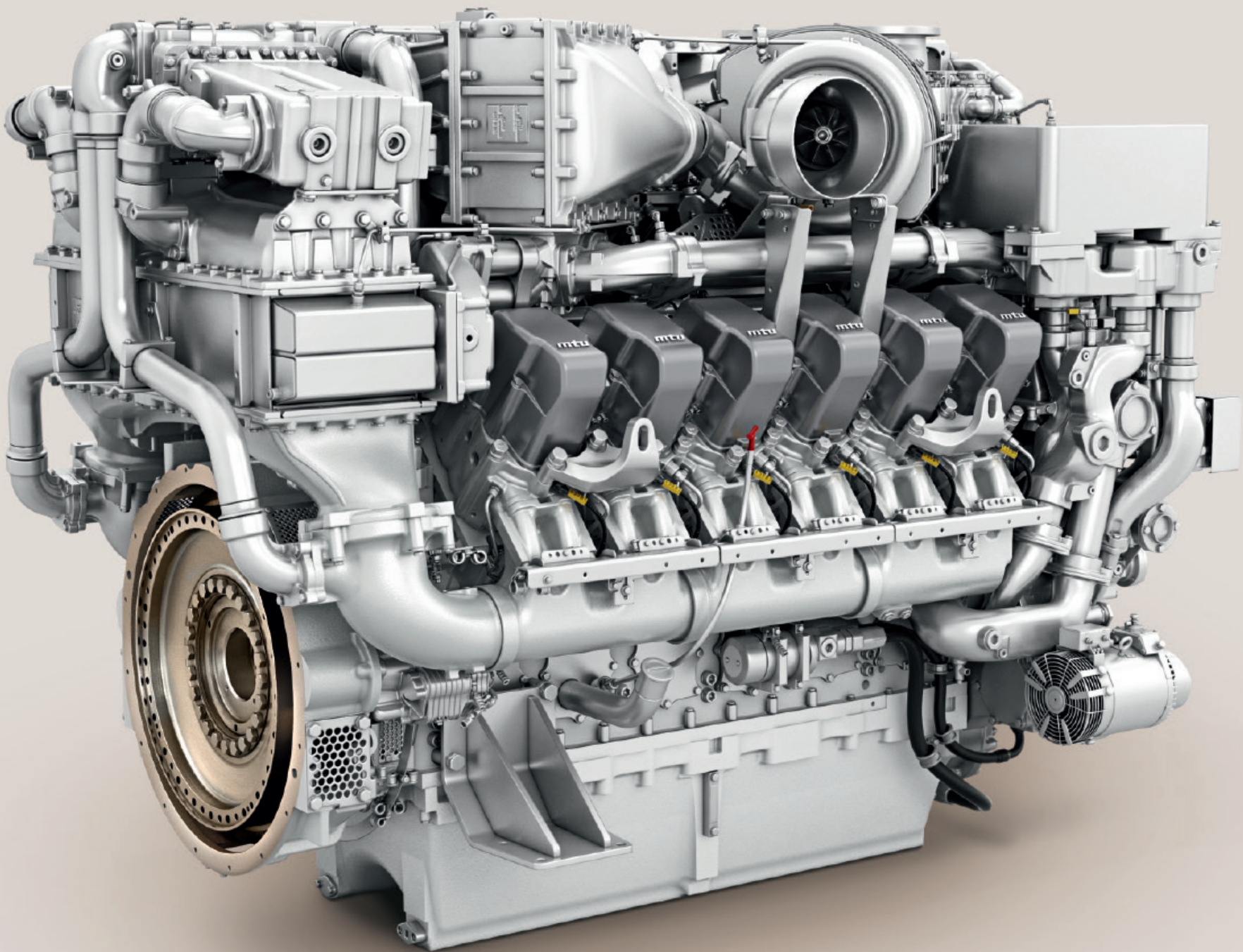
# Series 2000

Series		2000	
Engine model		2000 C02	
		12V	16V
Power Output	kW	567 – 750	783 – 1000
	(bhp)	(760 – 1005)	(1050 – 1341)
Peak Torque	Nm	3300 – 4100	4450 – 5250
Speed	rpm	2100	1800/2100
Emissions qualification		EPA Nonroad T2 Comp (40CFR89)	

Series		2000 with EGR technology			
Engine model		2000 C06		2000 C07	
		12V	16V	12V	16V
Power Output	kW	783	970	742 – 783	970
	(bhp)	(1050)	(1301)	(995 – 1050)	(1301)
Peak Torque	Nm	4636	5286	4636	5286
Speed	rpm	1800/2100	2100	1800/2100	2100
Emissions qualification		EPA Nonroad T4i Comp (40CFR1039)		EPA Nonroad T4 (40CFR1039)	



# Series 4000



Series		4000		
Engine model		4000 C01		4000 C02
		12V	16V	20V
Power Output	kW	1193 – 1510	1492 – 2125	2720
	(bhp)	(1600 – 2025)	(2000 – 2850)	(3650)
Peak Torque	Nm	6985 – 8199	9313 – 11142	15159
Speed	rpm	1900	1800/1900	1800
Emissions qualification		Fuel consumption optimized, EPA Nonroad T1 Comp (40CFR89)		

Series		4000		
Engine model		4000 C03		
		12V	16V	20V
Power Output	kW	1193 – 1680	1492 – 2240	2375 – 3000
	(bhp)	(1600 – 2253)	(2000 – 3000)	(3185 – 4023)
Peak Torque	Nm	7595 – 9435	9520 – 12566	15120 – 16852
Speed	rpm	1800/1900	1800/1900	1800
Emissions qualification		Fuel consumption optimized, EPA Nonroad T2 Comp (40CFR89), China NRMM Stage III (GB20981-2014) upon request		

Series		4000 with EGR technology		
Engine model		4000 C05		
		12V	16V	20V
Power Output	kW	1150 – 1864	2000 – 2400	2800 – 3000
	(bhp)	(1542 – 2500)	(2682 – 3218)	(3755 – 4023)
Peak Torque	Nm	7351 – 10409	10581 – 13403	15363 – 16753
Speed	rpm	1800/1900	1800/1900	1800
Emissions qualification		EPA Nonroad T4 (40CFR1039)		



Emissions Reduction Technology

# Low emissions. High performance.

MTU has long established itself as a leader in the development of solutions for emissions reduction. This challenge involves key technologies which we carry out in-house.

In construction and industrial applications the aim is to generate profit while protecting the environment. One basic condition for efficient operations is to comply with emissions regulations. We care for the technology you need.

In order to achieve advanced emissions reductions, we have invested our comprehensive expertise in core technologies: fuel injection, turbocharging, cooled exhaust gas recirculation, electronic engine controls for optimizing engine processes and preventing soot formation, as well as external optimization.

Advanced emissions regulations like EU Stage IV/EPA Tier 4 final demand further significant reduction in the pollutants emitted. Our engines and systems meet current legislative requirements with proven technologies.

- We care for the optimal solution for the special demands of each application and power range by choosing the ideal technology:
- **Selective Catalytic Reduction (SCR)** to lower NOx emissions as a key to compliance of regulations.
  - **Cooled Exhaust Gas Recirculation (EGR)** is the ideal solution to meet current and future emission standards.

**Selective Catalytic Reduction (SCR) Technology**  
SCR is a technology that injects urea into the exhaust stream where a catalyst then helps to convert nitrogen pollutants into the harmless components nitrogen, carbon dioxide and water vapor. The SCR technology has been tried and tested for many years in the truck sector.

- Advantages**  
The advantages of SCR in our engines:
- Low fuel consumption
  - Uncompromising engine availability and operational safety
  - Substantial reduction in nitrogen oxide and greenhouse gas emissions
  - No DPF and no DOC required

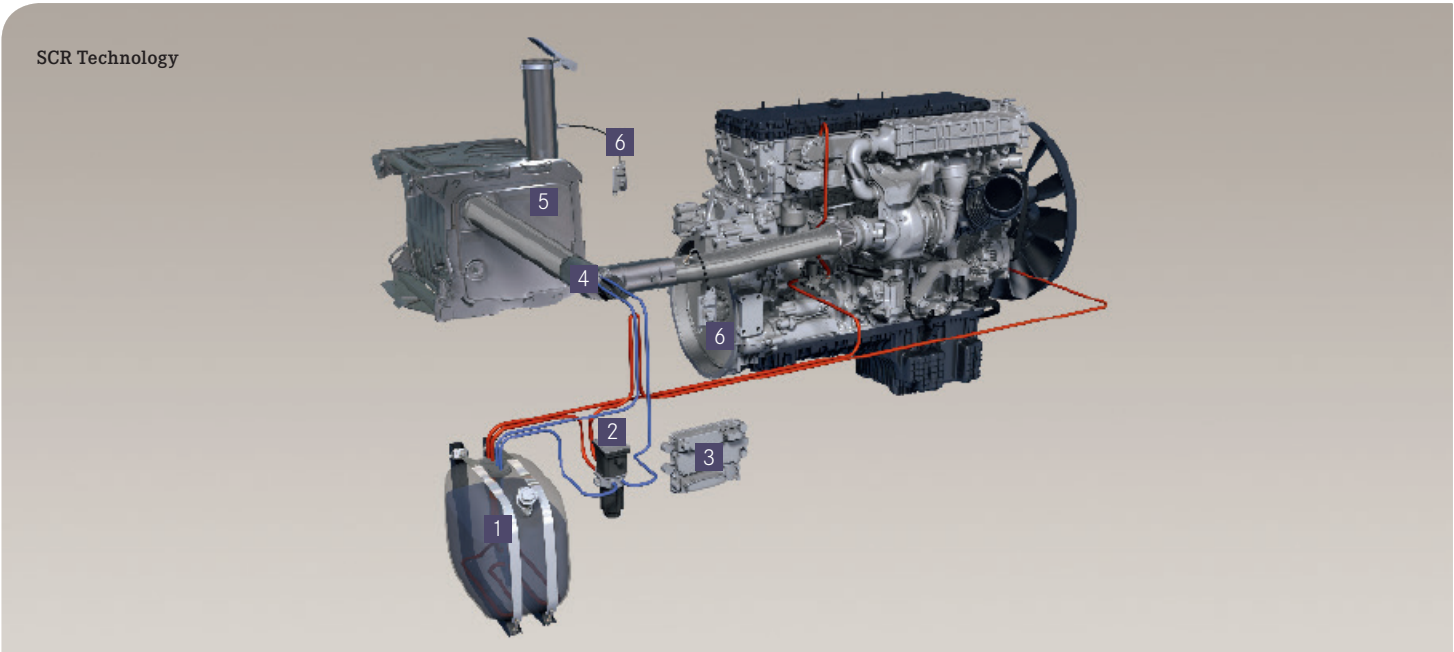
The perfect interplay of different technologies facilitates optimal results and the most important aim is achieved – a decrease in harmful emissions, along with a reduction in fuel consumption. A win-win situation for your earnings and the environment.

**Exhaust Gas Recirculation (EGR) Technology**  
Our latest engines are equipped with modern EGR technology. Combined with two-stage turbo-charging and charge-air cooling, EGR enables engine compliance with the most stringent emission regulations such as EPA Tier 4 final. That means optimum engine characteristics and cost-efficient operation while meeting emissions standards.

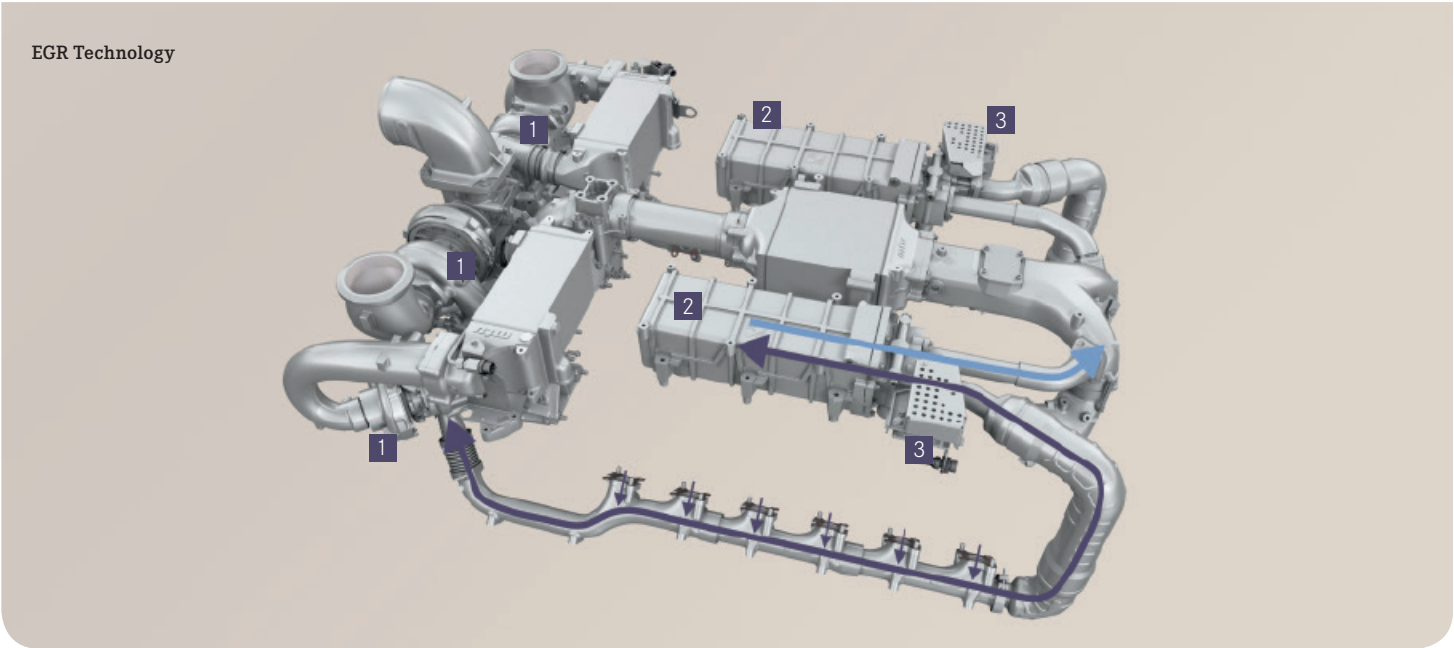
Depending on the engine operating point, a certain quantity of exhaust gas is conveyed to the EGR cooler. As it passes through the cooler, the hot exhaust gas is cooled and then mixed with charge air. Mixing the exhaust gas with charge air results in a significant reduction in combustion temperature by comparison with engines that are not using EGR. In return, much lower raw emissions levels of nitrogen oxide are generated inside the engine. The highly efficient EGR combustion process developed by MTU ensures compliance with EPA Tier 4 final emissions legislation without the need for aftertreatment.

- Advantages**  
In combination with two-stage turbocharging and charge-air cooling (MTU core technologies), EGR offers many advantages:
- Low fuel consumption
  - Wide engine performance map – full torque curve
  - Exceptionally high torque at low speeds
  - Excellent transient behaviour (load acceptance/speed jumps)
  - Full power output available even at high altitudes
  - Full power output available even at high ambient temperatures

No need for exhaust aftertreatment also means no need for additional operating fluids such as DEF, nor for DPF or DOC, nor for hydrocarbon dosing.



SCR Technology (example Series 1300 EU Stage IV/EPA Tier 4 final)	EGR Technology (example Series 1600 EPA Tier 4 final)
<b>1 Urea Tank</b> with urea fluid	<b>1 Two-stage controlled turbocharging</b> assures low fuel consumption across wide speed range, exceptionally high torque at low speeds, and clean combustion
<b>2 DEF Urea Supply Unit (pump)</b> pumps liquid urea from the tank to the dosing unit	<b>2 EGR coolers</b> bring about a lowering of the combustion temperature (and subsequently of nitrogen oxides generated in-engine) and are integrated into the high-temperature cooling circuit so that less heat is introduced, which in turn permits lower cooler dimensions
<b>3 Aftertreatment Control Module (ACM)</b> controls and regulates functions of the aftertreatment system	<b>3 EGR rate</b> EGR valve regulates recirculated exhaust gas quantities. EGR rate is optimized for all operating modes
<b>4 Dosing unit with Urea Nozzle</b> prepares correct urea quantity in relation to untreated engine emissions and provides for optimal spraying of urea/air mixture into exhaust line	
<b>5 SCR-Catalyst</b> converts nitrogen oxides in exhaust gas into harmless air components	
<b>6 NOx-Sensors</b> measure respective engine emissions in exhaust system	
We will be available as a partner to help design your optimal SCR system.	





A close-up, shallow depth-of-field photograph of an electronic circuit board. The board is populated with various components, including several integrated circuits (chips) of different shapes and sizes, some with gold pins. The background is blurred, showing more components and the intricate wiring of the board.

Automation Systems

## Integrated controls: Intelligent monitoring and control systems.

Our engines are powerful and technologically advanced. But in order to offer the best efficiency, reliability and environmental safety, they need more than just power. They need intelligent electronic management. Modern engine management systems handle the control and monitoring of the hardware and so enable perfection of performance. The combination of power and precision.



# We manage everything for you.

All our engines are equipped with electronic engine controls. Intelligent electronics ensure that performance and efficient operation are achieved under all operating conditions. Innovative, high-end technology takes over the control, regulation and monitoring of the drive system. The systems are modular in order to be able to adapt the diesel engine to the complex optimal operating conditions of the equipment. In addition, operating conditions that could lead to damage are detected in time.

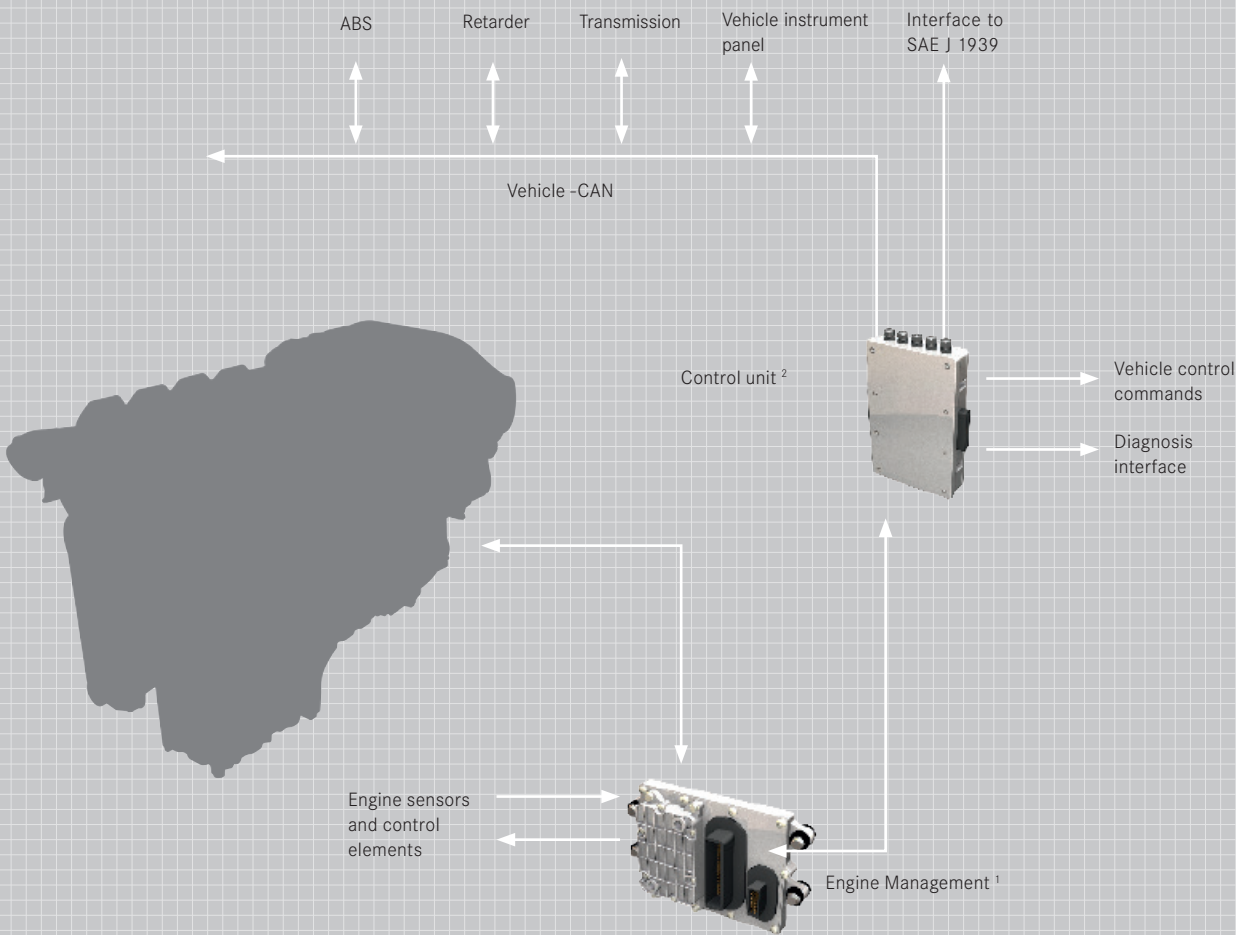
**Your benefits:**

- Protection of the engine and therefore safety by:
  - Reporting critical operating conditions
  - Temporary reduction in power
  - Automatic shutdown
  - Start inhibitor
  - Over speed regulation
  - Self-diagnosis and regulation for the system
- Standard interfaces for external system connections, such as CAN data bus and SAE J 1939
  - Easy integration with the vehicle
  - Flexible adjustment to the vehicle or vehicle components and project specific needs
  - Interface for engine diagnosis
- High availability and fail-safe operation
- High power efficiency
- Low fuel consumption
- Minimal exhaust emissions that fully meet all legal requirements

For engines equipped with SCR systems, we are your expert technology partner. The latest electronics integrate the necessary SCR components for the reduction of emissions intelligently into the overall system. This ensures optimal tuning of all engine and emission control functions.

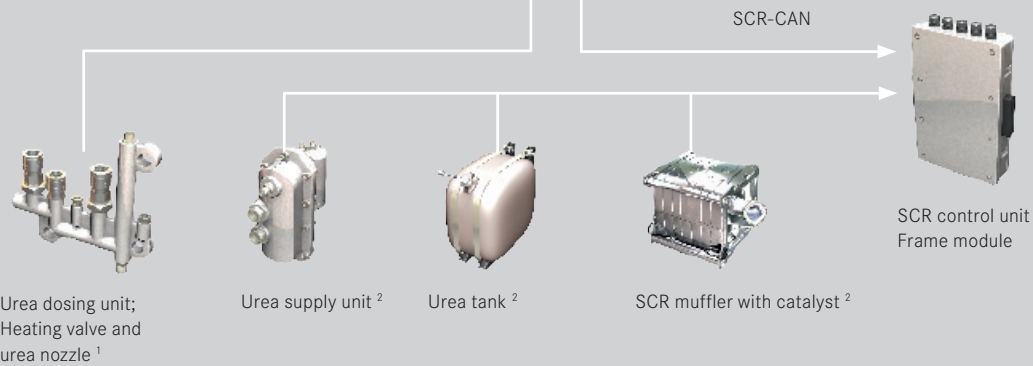
**Scope of supply for current engine series  
with emissions regulations EU Stage III A/EPA Tier 3**

Engine management system  
– Typical configuration Series 460, 500, 900 –



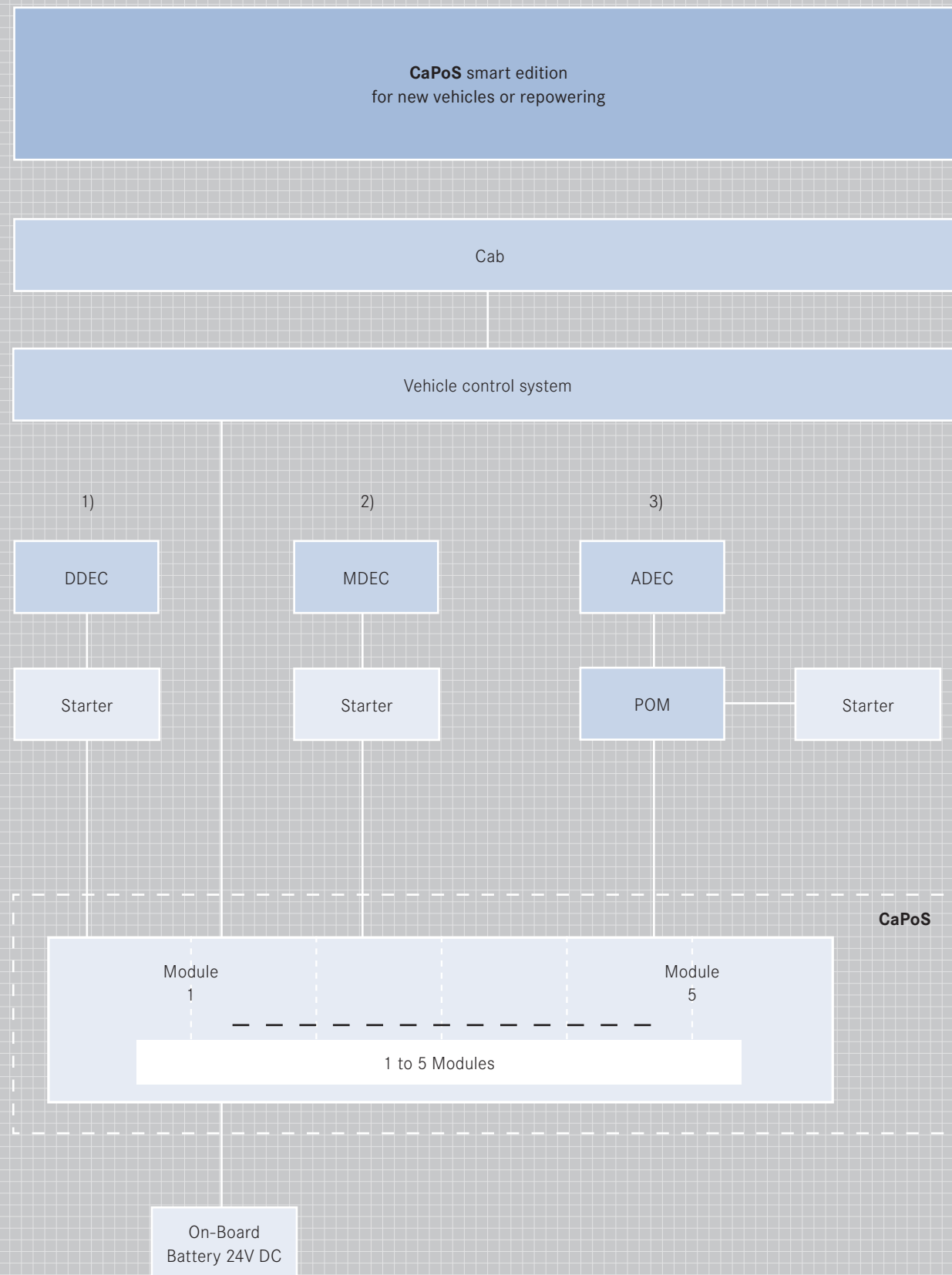
**Additional components for current engine series  
with emissions regulations EU Stage III B/EPA Tier 4i**

Engine management system with integrated SCR system  
– Typical configuration –

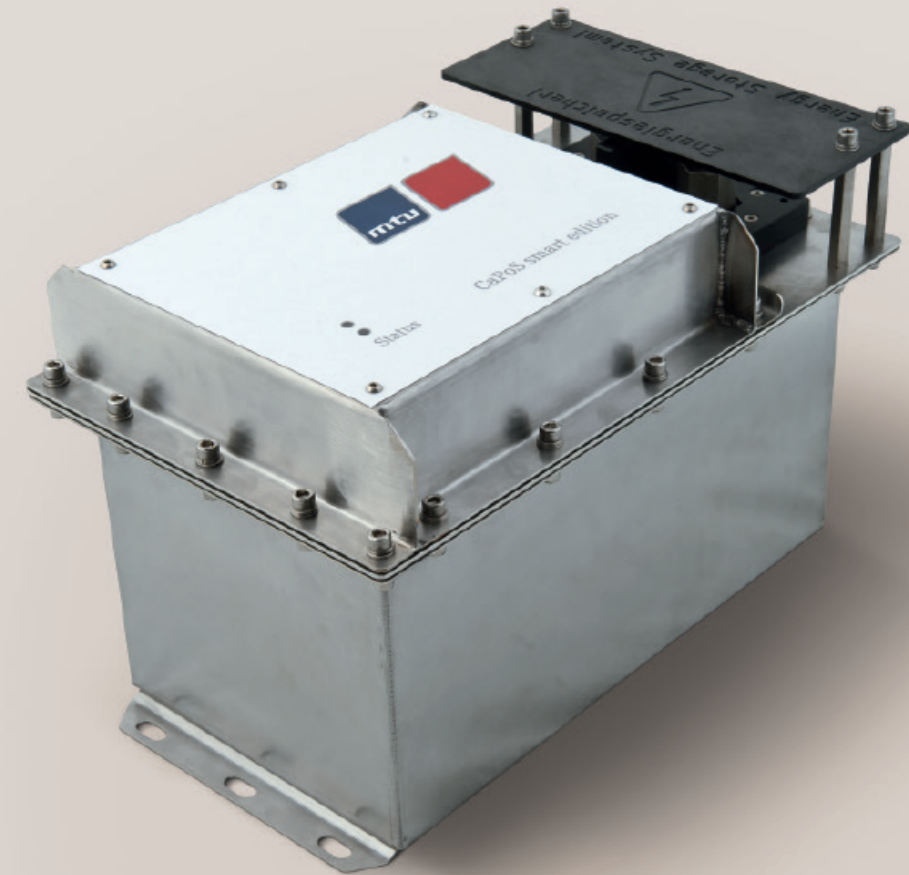


<sup>1</sup> Engine mounted  
<sup>2</sup> Vehicle mounted





1) Series 4000 01, Series 2000 01/02  
 2) Series 4000 02  
 3) Series 4000 03/04, Series 2000 06



## CaPoS smart edition – Capacitor Power System for Series 2000, 4000

# Reliable power right from the start.

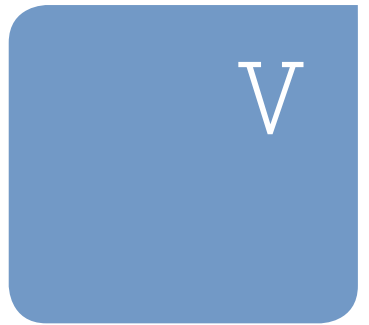
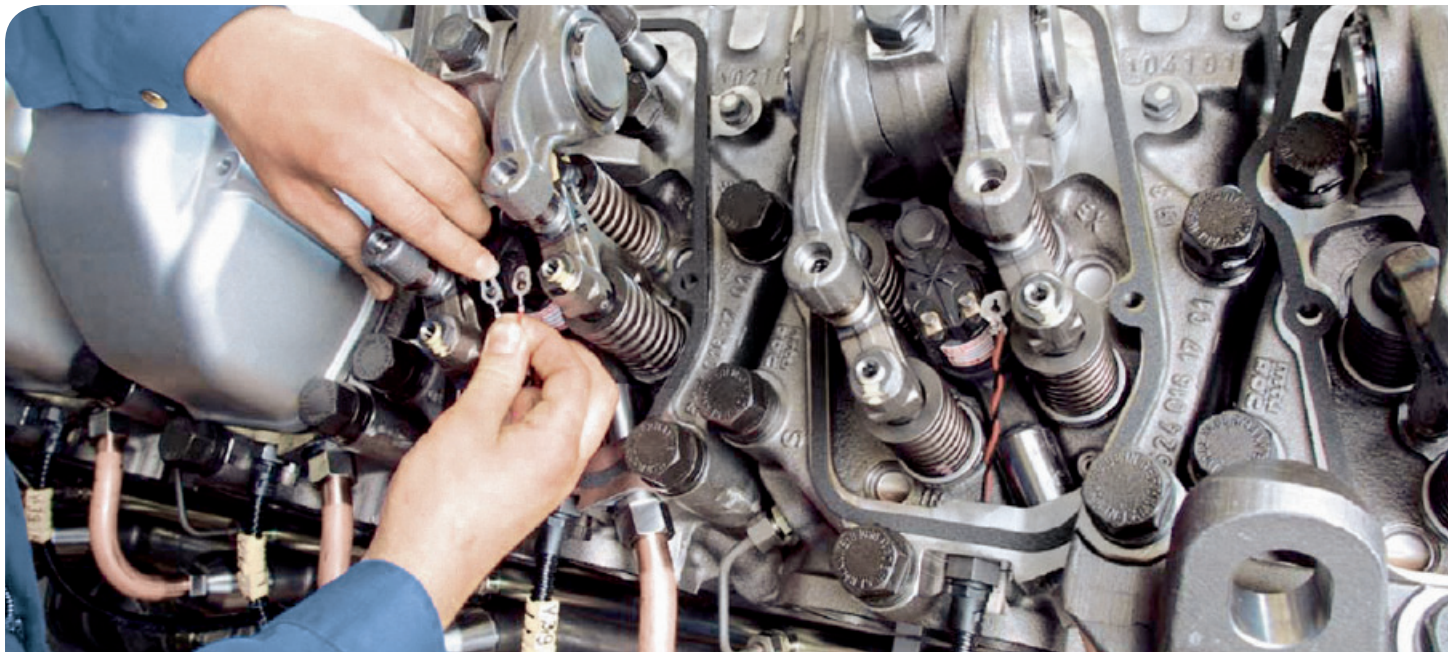
CaPoS smart edition was especially developed for heavy and duty applications and provides the high energy required by the 24V DC starters during the starting sequence.

CaPoS smart edition uses capacitor technology to optimize startup behavior. The number of modules to be used depends on the type of engine involved and its breakaway torque. CaPoS smart edition may be used autonomously or in conjunction with the **motivline** automation system.

### The most important features at a glance:

- Autonomous and modular construction
- Maintenance-free system
- Significant reductions in weight and volume compared with conventional starter batteries
- Optimized cold-starting capabilities
- Low life-cycle costs
- No voltage interruption during start-up
- On-board voltage of 24V DC
- Integrated self-monitoring system with interface to vehicle control system
- Integrated DC-/DC converter for automatical recharging
- IP66 protection





MTU **ValueCare**

# World-class engines deserve world-class support.

We have a strong commitment to our construction and industrial customers. With MTU **ValueCare**, this focus extends beyond the sale of our engines and systems. From maintenance to spare parts to remanufactured products, MTU offers a full range of support to help keep your equipment operating productively.



**mtu ValueCare**



Designed for maximum performance, uptime and value, MTU **ValueCare** is a diverse portfolio of products and services that can help you get the most from your equipment.

MTU **ValueCare** products and services are available anywhere in the world through our extensive network of authorized distributors and service dealers. For more information, please contact your local MTU service center or visit [www.mtu-online.com](http://www.mtu-online.com).

**MTU ValueCare includes three product lines:**

- **ValueService**  
Extensive global service and support to help you protect your investment
- **ValueSpares**  
Genuine spare parts and top-quality consumables designed specifically for MTU engines and systems
- **ValueExchange**  
Remanufactured engines and service parts engineered with the same high-quality standards as new products





# Never compromise.

MTU engines are built with legendary high standards. For maintenance and long-term support, don’t settle for anything less. Maximize the performance, uptime and longevity of your MTU investment with MTU **Value**Care—the only parts and service solutions that live up to MTU standards.

**Rely on MTU expertise.**

**Value**Service maintenance, repair and service solutions from MTU helps you get the most out of your equipment and protect your investment. MTU’s expert technicians and factory-approved methods optimize availability and reduce lifecycle costs while helping you avoid unexpected problems in the future. From scheduled and unscheduled maintenance to product training, our staff of trained professionals is committed to providing whatever level of support you need throughout the life of your MTU equipment, with support tailored to your specifications.

**Demand genuine.**

**Value**Spares genuine parts optimize the performance and value of your equipment. Available for modern and classic MTU, Detroit Diesel and Mercedes off-highway engines, we offer everything you need for a turnkey installation, including professional consulting, special tools, rental tools and spare parts kits. For added peace of mind, **Value**Spares parts are backed with a full factory warranty.

We share your obsession with uptime. So we make sure a wide range of genuine parts are available throughout your MTU engines’ and systems’ entire lifecycle—which can last for decades. Whatever part you need, wherever you are, we’ll get it to you fast through our cutting-edge MTU Parts Logistics Centers and our global network of more than 1,200 service centers worldwide.

Ordering **Value**Spares genuine parts is easy. All parts are available from one source, which helps reduce complexity and costs in your supply chain. Experienced MTU product experts provide invaluable technical support and troubleshooting to make sure you get exactly what you need. Our team will search our advanced and extensive online parts catalog—linked to factories and warehouses with highspeed connections—to identify the parts you need and promptly fulfill your request.

**Keep everything running smoothly.**

**Value**Spares consumables (filters, oils, coolants) play a vital role in protecting your investment in MTU engines and systems. Available from a single source, **Value**Spares consumables are an essential part of your preventive maintenance program. Superior design and top-quality materials result in maximum power, torque and low operating costs. As a result, **Value**Spares consumables increase uptime, reduce maintenance costs and enhance your peace of mind.

**Turn back the clock.**

**Value**Exchange remanufactured parts, engines and systems deliver the same high standards of performance, service life and quality as new products, along with identical warranty coverage—at a fraction of the cost. And with design and model-related updates made during the remanufacturing process, they also feature similar technological advancements.

Developed by R&D engineers, the **Value**Exchange remanufacturing process is designed to save you time and money, while benefiting the environment through the reuse of existing materials. To help you work more efficiently, a wide range of **Value**Exchange parts, engines and systems are available worldwide from our MTU service network.





# Local support. Worldwide.

The reliability and performance of your engines and systems are crucial for your success and competitiveness. We are committed to your support. Our convenient global service network provides you this assurance.

Whenever and wherever you need expert support, MTU specialists are available. This continuous and long-term care ensures high availability, dependability and efficiency throughout the lifecycle of your engines and systems.

To find your local MTU distributor, visit [www.mtu-online.com](http://www.mtu-online.com).



**Local support. Worldwide.**  
We ensure that you receive individualized support from our global network of more than 1,200 service centers – anywhere, anytime.

- Global Headquarters
- ▣ Regional Headquarters
- Sales and Customer Service Center

**Customer Assistance Center**

Agents are available 24/7 to respond to your inquiries and any service needs.

**E-mail:**  
[info@mtu-online.com](mailto:info@mtu-online.com)

**Europe, Middle East, Africa**  
+49 7541 90-77777

**Asia/Pacific**  
+65 6860 9669

**North and Latin America**  
+1 248 560 8888



# Series and Emissions Qualification.



Engine model	EU Nonroad St II Comp (97/68/EC)	EU Nonroad St IIIA Comp (97/68/EC)	EU Nonroad St IIIB Comp (97/68/EC)	EPA Nonroad T2 Comp (40CFR89)
Series 900				
4R 904 C01		■		
6R 906 C01		■		
4R 924 C01		■		
6R 926 C01		■		
4R 924 C02			■	
6R 926 C02			■	
Series 460				
6R 460 C01		■		
6R 460 C02			■	
Series 500				
6V 501 C01		■		
6V 501 C02			■	
8V 501 C01		■		
8V 501 C02			■	
Series 60				
12.7 l	■			■
14 l	■	■		■

\* upon request

EPA Nonroad T3 Comp (40CFR89)	EPA Nonroad T4i Comp (40CFR1039)	China NRMM Stage III (GB20981-2014)*	China Onroad Stage V (GB17691-2005)
■		■	
■		■	
■		■	
■		■	
	■		
	■		
■		■	
	■		
			■
■		■	
	■		
■		■	
	■		
■		■	
			■
■		■	



# Series and Emissions Qualification.

Engine model	EU Nonroad St IV (97/68/EC)	EPA Nonroad T1 Comp (40CFR89)	EPA Nonroad T2 Comp (40CFR89)	EPA Nonroad T4i Comp (40CFR1039)	EPA Nonroad T4 Comp (40CFR1039)	EPA Nonroad T4 (40CFR1039)	Fuel consumption optimized	China NRMM Stage III (GB20981-2014)*
Series 1000								
4R/6R 1000 C00	■					■		
Series 1100								
6R 1100 C00	■					■		
Series 1300								
6R 1300 C00	■					■		
Series 1500								
6R 1500 C00	■					■		
Series 1600								
10V/12V 1600 C00					■	■		
Series 2000								
12V/16V 2000 C02			■					
12V/16V 2000 C06				■				
12V/16V 2000 C07						■		
Series 4000								
12V/16V 4000 C01		■					■	
20V 4000 C02		■						
12V/16V/20V 4000 C03			■				■	■
12V/16V/20V 4000 C05						■		
* upon request								



